

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of increasing the rate of an enzyme catalyzed nucleoside monophosphate transfer from a terminal-phosphate-labeled nucleoside polyphosphate to detect the activity of said enzyme or said terminal-phosphate-labeled nucleoside polyphosphate, said method comprising:

- a) conducting said enzyme catalyzed nucleoside monophosphate transfer from a terminal-phosphate-labeled nucleoside polyphosphate reaction in reaction buffer comprising a manganese salt, thereby increasing the rate of said reaction over the rate of said reaction in the absence of manganese;

wherein said enzyme is ~~selected from~~ a template dependent ~~nucleic acid~~ DNA polymerase, ~~a ligase, a telomerase or a primase~~
further wherein said reaction is conducted in a template dependent manner.

Claims 2-3 (cancelled)

Claim 4 (currently amended): The method of claim 1, wherein the polymerase is selected from Phi 29 DNA polymerase, Klenow exo⁻, Sequenase T7 DNA polymerase exo⁻, Taq DNA polymerase, Thermo Sequenase I Taq F667Y deletion 1-235 DNA polymerase, Thermo Sequenase II Thermus thermophilus F667Y D18A DNA polymerase, ThermoSequenase E681M Taq F667Y D18A E681M DNA polymerase, T. hypogea (Thy B) DNA polymerase, T. neapolitana (Tne) DNA polymerase, T. subterranea (Tsu) DNA polymerase, T. barossii (Tba) DNA polymerase, T. litoralis (NEB Vent) DNA polymerase, T. kodakaraensis (Novagen) DNA polymerase, P. furiosis (Stratagene) DNA polymerase, P. GB-D (NEB Deep Vent) DNA polymerase, Human Pol beta, Tsp JS1, AMV-reverse transcriptase, MMLV- reverse transcriptase and HIV- reverse transcriptase.

Claim 5 (original): The method of claim 1, wherein the concentration of manganese salt is at least 0.01 mM.

Claim 6 (original): The method of claim 1, wherein the manganese salt concentration is between 0.01 to 50 mM.

Claim 7 (original): The method of claim 1, wherein the manganese salt concentration is between 0.1 to 10 mM.

Claim 8 (original): The method of claim 1, wherein an additional metal salt other than manganese, is also present with the terminal-phosphate labeled nucleoside polyphosphate.

Claim 9 (original): The method of claim 8, wherein said additional metal salt is a magnesium or a calcium salt.

Claim 10 (original): The method of claim 8, wherein said additional metal salt is present at a concentration of 0.01 mM to 50 mM.

Claim 11 (original): The method of claim 1, further comprising conducting said reaction in the presence of a metal ion buffer to modulate the concentration of free metal ion.

Claim 12 (original): The method according to claim 11, wherein said metal ion buffer is a dicarboxylic acid.

Claims 13-66 (cancelled)